Part ③

Camel, Calf, Pet A' diseases

① Rabies
② Canine Parvovirus
③ Canine distemper
④ Canine infectious hepatitis
→ Pet A' diseases

⑤ RCD
⑥ Navel ill
⑦ oral Necrobacillosis
⑧ Infectious Calf diarrhea
→ Calf diseases

⑨ Camel Pox
⑩ Surra
→ Camel diseases

⑪ Toxoplasmosis
⑫ Contagious Foot Rot
→ sheep diseases

Item	Rabies = Mad Dog	Canine ParvoVirus	Canine distemper = Hard pad disease	Canine infectious Hepatitis = Blue eye
• C.A :-	RNA Virus F:- Rhabdoviridae G:- Lyssa Virus	DNA Virus F:- paraviridae G:- ParvoVirus * derivated from ParvoVirus type I → which cause panleukopenia in Feline	F:- ParamyxoViridae G:- MorbilliVirus	AdenoVirus Type I
• Source of infection :-	Saliva of Rabid Animal	Feces, Ground		
• Host Suscept. :-	worm Blooded A' esp. Carnivores, Cattle, sheep, goat, Human	Dogs → 1-2 month → MyoCarditis → sudden death → 2-9 month → Enteric Form (fever, Diarrhea)	Puppies, Fox, wolves → young → 3-6 months → Adult → Subclinical (Mild)	Dog, fox → young Ages ↑ sus.

• **Mode of Transmission** :	① Bites of Dog → wound → Contamination By Saliva which has Virus → Mainly ⓢ ② wound, Abrasion, Scratch contaminated By saliva ③ oral Route → Rare ④ Bats → Reservoir → Virus Multiply Fatty tissue ↳ Vampire Bats ↳ Fruit Bats → Egypt	oral Fecal Route (Ingestion)	• Inhalation of Droplets • Ingestion of Contaminated Food, water, Milk **Predisposing Factors** : → young Age → Cold weather	Fecal oral Route (Ingestion)
Pathogenesis :-	Virus → Billing ↓ wound → Nerve of muscles ↓ Peripheral Nerves → Brain ↓ During encephalitis Paralysis → Nerve → salivary gland → saliva	Virus → ingestion ↓ Pupies 1-2 m ↓ Hyocorditis ↓ death 2-9 m ↓ Enteric Form ↓ Bloody diarrhea, Fever	Virus → Inhalation / Ingestion → Puppies → lymph ↓ Blood → Viremia → localization ↳ GIT, Resp., eye, Skin, Brain	

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clinical Signs:
I.P varies from 15 days → 6m → 1year ... ??
* Susceptible host
* Site of Bite
* Dose of Virus
Signs in Dog →
① Prodormal Phase
② Exciting Phase
③ Paralytic Phase (dump)
• 2-3 days
• Normal temp.
• stop eat, drink
• change Behaviour
• Frequent urination
• Salivation
• 2-3 days
• salivation
• eye pupil diltation
• change voice
• Running at straight line
• Biting
• ↑ of sexual desire
• 2-3 days
• drop of lower Jaw
• paralysis of head, Neck
• salivation
• inability to swallow
① Entric Form
• Fever
• Vomiting
• Bloody diarrhea
• Coma
• death
• dehydration
② Myocardial Form
• Myocarditis
• sudden death
① general
→ Fever
→ depression
→ Anorexia
→ Fatigue
→ off Food
② Alimentary (digestive) form
→ Fever
→ Vomiting
→ Bloody diarrhea
→ dehydration → Death
③ Respiratory Form
→ Fever
→ Nasal discharge
→ Coughing
→ Sneezing
④ skin Form
→ Nodules
→ Red spots
→ hyperkeratosis
① per acute
→ Sudden Death
② Acute
→ Fever
Vomiting
Bloody diarrhea
Hepatitis
Jaundice
Coma
Death
→ Blue eye
Corneal opacity Appear later After disappearance of Signs By 2-3 weeks due to → Ag Ab reaction Percipitation
(3)
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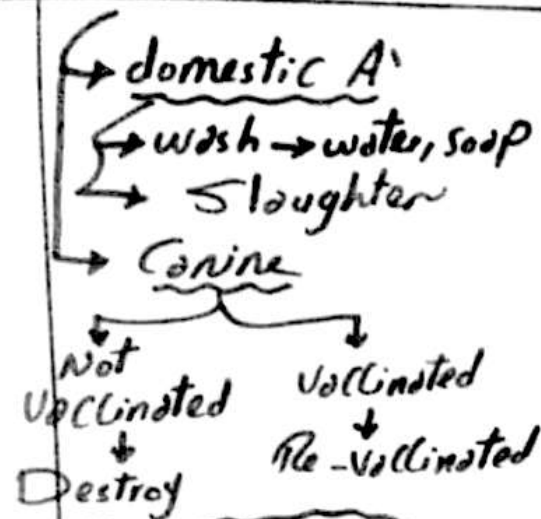
Lab: Diagnosis	• Sample → Brain, Salivary gland, saliva (Best) • Identification → FAT → Best • Histopathology → Brain smear stained by seller Gemsa stain → Negri Bodies • Inoculation in lab A' → I/C in Mice 10 days → Paralysis, death	• Isolation → T.C • Serology → ELISA, FAT	Sample → whole Blood, Nasal discharge, digestive, eye secretions Serology → ELISA, CFT, FAT. differential diagnosis • Digestive Form → Canine Parvo virus, Corona virus, Rotavirus, Salmonella • Resp. Form → herps • eye Form → Blue eye	• Sample → Blood, Liver, L.N • Isolation → T.C • Serology → CFT, ELISA
Control, Prevention:	① Elimination of stray Dogs ② Elimination of Fox, wolfs ③ Biten A' from Rabid Dog → Human → wash with water, soap → Vaccination	① Vaccination → Modified Live vaccine → Im/ s/c annually → Multivaccine → Im/ s/c Annually ② Hygienic measures	Vaccination: → Modified live vaccine → Im/ s/c 1year immunity	Vaccination: → Modified live vaccine → Im/ s/c → 1 year immunity at 2 month of age → Multi vaccin → Im/ s/c at 3 Month → 1 year immunity

- domestic A'
  - wash → water, soap
  - Slaughter
- Canine
  - Not Vaccinated → Destroy
  - Vaccinated → Re-vaccinated

④ Vaccination

- Inactivated simple vaccine
  - 1 Cm s/c 3-4 month
  - 1 year immunity
- live attenuated vaccine

Flury strain (LEP)	Flury strain (HEP)	Modified Live Flury (LEP)
Dog 40-50 Passage 2 years immunity	Cat 80-100 Passage long immunity	I/M 2 year immunity

III:
- A' → Post signs → No TTT
- Human → wash wound + Antiseptic
  - → Anti Rabid immunoserum 20 Iu/kg

TTT of parvo, distemper, Blue eye ...

① Antipyretic
- Cital 3 ml oral
- Fynadine 0.5-1 ml

② Antiemetic
- Zantac 0.5 ampule —12hr→ 0.5 ampule

③ Anti inflammatory
- Dexamethasone → 0.5-1 Ampule

④ Antibiotic
- Amoxycillin, gentamycin I/M, oral

⑤ Fluid therapy
- Ringer lactate I/V

• Diseases Causing Nervous Signs in Dog...

① Rabies ② PseudoRabies ③ Canine hepatitis
④ Nervous form of distemper ⑤ Cerebral Babesiosis

• Diseases in Differential Diagnosis with Rabies...

① PseudoRabies ② Canine distemper ③ Infectious Hepatitis

Item	Rabies (Mad Dog)	PseudoRabies (mad itch)
• Cause:	Lyssa Virus RNA	Herpes virus DNA
• Transmission:	Biting	Ingestion, inhalation
• Reservoir:	Bat	Pig
• I.P:	15 day → 6 month → 1 year	1-2 weeks
• Course:	10 Days	2-3 days
• Virus:	in saliva Not Blood	in Blood Not saliva
• Signs:		
① Temp:	Normal	↑
② dropping lower Jaw:	+	−
③ Sexual desire:	+	−
④ Cough, Pneumonia:	−	+
⑤ Sever itching:	−	+
• Histo-Pathology Ex:	ICIB (Negri Bodies)	INIB

stem	Respiratory disease Complex = Calf pneumonia = RDC	oral Necrobacillosis	Navel ill = Joint ill
• Cause:	Multifactorial Disease ... **Viral**: • PI3 • BRVs • IBR • BVD • Rhinovirus • Reovirus • Adenovirus **Bacterial**: • Pasteurella • staph • strept • Coryne **Parasitic**: • Lungworm (dictyocalus viviparous)	Fusiform bacterium Necrophorum (sph. Necrophorum) G-ve	• E.Coli • strept • Coryne Pyogenes • sph. Necrophorum
• Predisposing Factors:	① Enviromental → Cold, R.H → Ventillation → M.M secretion → ↓ Alveolar macrophage Activity → Affect cilia → Age → Calf → 1-4 months ② Mangemental → over Crowding → Take Colostrum or Not → Rearing different Ages → different sources of Calves	Age → 2week – 1year (calf)	

Host Sus. :	Calf → 1-4 month		Calf → 2w → 1year		Calf → 1st week
Mode of Transmission :	Inhalation → droplet, → Aerosol		Abrasion in Buccal Mucosa		
Clinical Signs :	① Acute → Fever → Cough → Dry then Moist → dyspnea → lacrimation → Nasal discharge → (Serous → Mucoid → Purulent)	② Chronic → Normal temp. → Mild Cough. → Mild Nasal discharge (Purulent)	① Necrotic stomatitis → 2 week → 3 month → Fever → salivation → cheeks edema → Bad Mouth odour → cheesy material → Difficult Remove → ulcer in Mucosa of Mouth → long, deep ulcer in Buccal Mucosa	② Calf diptheria → 3month → 1year → Fever → Bad offensive odor → Edema in pharynx, larynx → ulcer → diptheretic Membrane → cough → dyspnea → More dangerous disease	① Infl. of umbilicus (omphalitis) ↓ Progress internally ↓ omphalophlibitis ② septicemia ↓ Joint ↓ Joint ill (Poly Arthritis)
P.M :	• Gray or Red hepatization • Thoracic L.N → enlarged • lung Edema				Hernia
Diagnosis (lab) :	• Sample → Nasal swab • Serology → CFT, SNT, ElISA • T.C → UNT Confirmation test				

III :-			
	① **Antibiotic** Draxin 1ml/40kg I/M one If Pasterulla → Sulfa If Mycoplasma → Tylosin 1cm/10kg ② **Antiinflammatory** → Finadyne ③ **Antihistaminic** → Avil Amp/70kg ④ **Bronchodilator** → Aminophylen Amp/70kg ⑤ **Supportive TTT** → Fluid therapy → vit. C, B, E, se	① **local Antiseptic** ↓ Triodine ② **AntiMicrobial** → 33% sulfonamide ↓ Drug of choice 1^{st} day → 140 mg/kg 2-3^{rd} day → 70 mg/kg	① systemic antibiotics ② local omphilitis ↓ TTT As Abcess

Fluid Therapy

→ lactate Ringer → The Best
→ 5-6% → oral Administration ← standing Position
6-8% → I/V ←
8-10% → sternal Recumbency But, Alert
10-14% → lateral Recumbency Collapse → hopless

→ $\frac{\text{B.wt} \times \text{Dehydration degree}}{100}$

→ Don't given one time But, Divided given every 4 hours

Control and Prevention ::	① Avoid Predisposing Factors ② Sufficient Amount of Colostrum ③ Vaccination ⇒ → Pneumo 3 (PI3, IBR, BVD) → Pneumo 4 (PI3, IBR, BVD, BR synctial) → Veri shield 5 التلاريث ⇓ 5ml —4weeks→ 5ml S/C 6 month immunity → Cattle Master 4 (PI3, BVD, IBR, BR synctial) 2ml —Month→ 2ml I/M 1 year immunity		
الأربع فاكسينات	→ In Pregnant → in last stage 2.5 ml/kg 2nd Dose before Parturation By 2weeks Calf Must take Colostrum in First 6hrs (80ml/Kg) → Calf at 3rd Month (12 week)		

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System	Toxoplasmosis	Contagious Foot Rot = CFR = Contagious ovine Pododermatitis
C.A:	Toxoplasma gondii	• Bacteriodes Nodosus • Fusobacterium Necrophorum
Mode of Transmission	• Ingestion of Food, water Contaminated By Feces of Cat Containing oocyst	• wound • Contaminated Soil
Host Dus.:	Animals, Birds, human	Cattle sheep, goat → Mainly
Clinical Signs:	**Dog, Cat** • Miotic Pupils • Depression • Anemia • lethargy • Photophobia • ocular discharge **Cattle** • No Abortion • dyspnea • Ataxia • Congenital Anomalies ↓ Death 2-6 days **Sheep, goat** • Circling • impaired Vision • Placentitis • Metritis • Abortion in last Month • still Birth • Congenital Anomalies	• severe lamness → of one foot • Inflammation of intradigital cleft with foul smell discharge • Bidigital Separation of hoof • knee walking or Recumbency • In severe Cases ↳ sloughing of hoof → enterance of M.O → Fever, Anorexia (ثانى) بأخذ نفسه ← Not Febrile لا يسبب حرارة
P.M.:	① Swollen Cotyledons Contain grey Foci 1-2 mm ② Brain Contain chalky Areas of Necrosis in white Matter of Cerebrum	• Horn of sole, wall is separated from tissue By grey Caseous Necrosis

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Diagnosis: (lab)	• Sample → placenta, parenchymatous organs of aborted fetus ↓ in 10% formalin → for mouse inoculation, histopathology • Serology → ELISA → IgM → acute infection → IgG → chronic " • PCR, CFT • Sabin Feldman dye test	• Sample → swab from foot lesion prefer from → interdigital skin • A specific fluorescent antibody technique (FAT)
• Tt:	Drug of choice in dog, cat ↓ Clindamycin – spiramycin → oral 10-40 mg/kg → parental 25-50 mg/kg } for 2 weeks	① Penicillin → 70000 I.U/kg I/M every 12 hrs ② Streptomycin → 10 mg/kg ← combination ③ Local Tt → Triming all necrotic tissue Removing till oozing blood → Foot bath containing drug → Zinc sulphate 10% → Cu sulphate 10% → Formalin 5% → Chloramphenicol 10%
• Control and Prevention:	① Chemoprophylaxis in cats → Monensin 200 mg/kg ② Overcome stress ③ Prevent food contamination by feces ④ Hygienic disposal of feces ④ Vaccination → avirulent strain 48 of T. gondii	Twice daily 5 minutes Not dipping

Immunity 2 lamb seasons   I/M   3 weeks before lambing

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Life Cycle, Pathogenesis :.
F.H infected By eating raw Meat from infected I.H
infective Cyst digested in intestine
release large Number of Bradyzoite
penetrate intestinal epith.
Schizony
Gametogony in S.I
oocyst
Sporulation
Contaminated A. Feed
In I.H :.
oocyst release 8 sporozoite
penetrate epith.
lymph
Tachyzoit spread
Liver, Muscle
CNs
encephalitis
lung, heart
Pneumonitis EnteroColitis
Gravid uterus
1st 2 m
death with ressorption
mid (20-100 day)
Mummified or Abortion
110 day to full term
Congenital Anomalies
(14)
Prevention, Control of CFR...
① early Detection, identification
② Isolation of Suspected Cases
③ Early TT
④ Culling of Non Responding, chronic Cases
⑤ Not mixing sheep from different Sources
⑥ Vaccination
oil adjuvant bacteroides Nodosus Bacterin
1ml 4-8 w 1ml S/C
differential diagnosis of CFR...
① Foot Abscess
• Not Contagious
• extensive Supuration
② CE, FMD, BT
• lesion Around Mouth
③ strawberry Foot Rot
• lesion in lower limb Not claws
④ ulcerative dermatosis
• lesion on Face, external genitalia
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[illegible]em	Camel Pox = CP = True Pox Virus	Trypanosomiasis in Camel → Surra	
• C.A:	Pox Virus	T. evansi	
• Host:	Camel, Human	Camel > Horse > donkey > Mule > Dog > cattle > Buffalo > goat > sheep > pig > wild A	
• Pathogenesis:	True Pox → Camel, Human ↓ skin → Pustule, Papule → Mild Fever ↓ involve internal organs	Biting insect → Host → Blood → Acidosis ↓ hemolytic Anemia → signs	
• Clinical Signs:	• Mild Fever • Papule, Pustule on skin Around Mouth • enlarged Maxillary L.N • Edema in head, neck, upper eyelid (Mainly) • may diffuse to M.M of eye → Caseous material • Camel Rub it's lips to relieve puritis	① Acute Form • Death in few days or Months • Fever • Edema → Belly, hindlegs, scrotum • Pneumonia • Nervous Signs → Paraplegia, Paralysis, • Cold Sweat • urine → Dark with Punget odor • Abortion, Still Birth	② Chronic Form • Anemia • Emaciation, weakness • Rough Coat • pale, ecchymotic M.M • Recurrent fever • skin ablessation • Corneal opacity • Muscle Atrophy • sexual excitement • Edema in lower parts

Lab diagnosis:	① E.M ② Sample → scab lesion ③ Histopathology → ICIB ④ Isolation → ECE ↓ Pock lesion	① Sample → Blood from → ear vien ② Microscopic ex → Giemsa stain → Thin, Thick smear → Trypanosoma ③ Direct wet Blood smear. ④ inoculation in lab A' → Mic, Rat ⑤ Mini Anion exchange chromatographic technique → used to seperate trypanosoma from host RBCs, WBCs ⑥ Serology → IFAT, ELISA, CATT ⑦ Biochemical Tests → Formol gel test, thymol turbidity test, Mercuric chloride test → ⑧ Ig in serum
TTT:	① Pot. permengenate ② Antibiotic spray ④ Antihistaminic ⑤ long Acting oxytetracycline 20mg/kg every 2 days	
Differential Diagnosis:	① Mange ② Ring worm ③ dermatophillosis	Diseases causing → Anemia
Control, Prevention:	① Isolation of infected A' ② Put scab lesion in Milk → scratch lips, Nose → take immunity	① Detection, TTT of infected A' ② Prophylactic TTT of susceptible A' ③ Protection from Biting Flies ④ No vaccine

Mode of Transmission:	Direct, indirect Contact	• Mechanically By Biting hematophagus Flies • Blood inoculation experimentally → Rare • Carnivores → eat Meat from infected A
• Factors Aff. Sus:	• Age → Calves up to one year • stress → weaning, Poor Nutrition	Season → Summer Due to ↑ Insect Activity
• P.M:	Emaciation, Ab Cess, Pox lesion	• petechial hemorrhage → Serous Membrane Viscera • enlarged LN, spleen • Anemic Carcass, Adema, hydrothrax, Ascites
		TTT of Surra: ① Suramin 7-10 mg/kg I/V ② Diminazene Aceturate (Berenil) 3.5-7mg/kg I/M ③ Quinapyramine dimethyl sulphate 3-5 mg/kg S/C ④ Isometamidium chloride 0.5-1 I/M ⑤ Homidium chloride 1 mg/kg

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Infectious Calf Diarrhea

① Colibacillosis :.

• Types :.

- Non-pathogenic → In intestine → Commensal, Not produce disease
- Pathogenic → EIEC, EPEC, ETcE, EHEC → has shigella like toxins → Bloody Diarrhea

• Predisposing Causes :.

- insufficient passive immunity
- Intensive husbandry
- Poor hygiene
- large Dose

• Source of infection :.

- FeCes of infected A'
- Diarrheal A'

• why Newly Born under 1 week ... ??

- The Normal Flora is Not fully established
- Newly Born has No gamma globulin
- They have ~~[illegible]~~ immune system

• out Break ch' By :.

- severe watery Diarrhea
- Dehydration, Collapse

• Diagnosis :.

- ElISA
- slide Agglutination test
- PCR

Cl. perfringens	E. Coli
Any time in New Born	under 3 days old
↓ Amount of Colostrum	No Colostrum
septicemia, Fever, dehydration	splashing sound in intestine

① Salmonellosis:

- Age → 1-7 weeks
- Signs:
  - → watery feces contain Fibrin, foul smell
  - → Dehydration
  - → Thick saliva Bulky Coat-like layer cover Tongue
  - → Fever, Septicemia
- Diagnosis:
  - → Fecal sample → special Media → Brilliant green Agar

③ Roto virus:

- Signs → Malabsorption, diarrhea Due to → Blunting villi
- Diagnosis → ELISA, FAT

④ Clostridial enterotoxemia:

- Cause → Cl. Perfringens Type C in Calves
- Signs → hemorrhagic enterotoxemia
- Age → Calves younger than 10 days
- Also Cause → Necrotic enteritis → sudden death

⑤ Corona Virus:

- Age → 1-2 weeks
- Signs → yellowish diarrhea, Resp. signs
- Diagnosis → HA, HI

⑥ Coccidiosis:

- Age → ④ 1 month
- Signs → Tenesmus (Dark Brown diarrhea with dysentery without diphtheritic membrane)

⑦ Cryptosporidia:

- Signs → yellowish watery diarrhea, fever
- Diagnosis → Modified Z-N stain → Red

Treatment:

① Oral Rehydration Solution:

[1]
- Sodium chloride 20 gm
- " Bicarbonate 20 gm
- Pot. chloride 6 gm
- Glucose 200 gm
- water 4 L

OR

[2]
- Sodium chloride 25 gm
- Pot. citrate 4.5 gm
- " chloride 3 gm
- Glucose 130 gm
- water 4 L

* Fluid therapy → 1/3 I/V, 1/3 orally, 1/3 S/C

* Volume of fluid therapy = weight of calf × dehydration %

degree	dehydration	Base deficit
1st	5 %	5
2nd	7 %	10
3rd	9 %	15
4th	12 %	20

② Anti Bacterial:

Neomycin sulfate, chloramphenicol

③ Sensitivity test Must Done

④ Probiotics (lactobacillus Acidophilus) → Add to Ration → Prevent Growth of entero bacteria

⑤ Antidiarrheal Drugs
- Astringents
- Bisthmus, starch